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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,346	11/06/2003	Daniel J. Bratek	IS01350AP	8107

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MOTOROLA, INC.  
1303 EAST ALGONQUIN ROAD  
IL01/3RD  
SCHAUMBURG, IL 60196

EXAMINER
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COZART, JERMIE E

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/702,346

Applicant(s)

BRATEK ET AL.

Examiner

Jermie Cozart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pepperling et al. (6,715,360) in view of Ito et al. (5,158,390).

Pepperling discloses assembling a high pressure sensor (72) with a press-fit, which has a pressure port (74) having a material inherently with a first hardness and a housing (90), the pressure port having a mounting boss (78) and the housing having a receptacle (not labeled, fig. 3) for receiving the mounting boss. A shoulder (not labeled, fig. 3) is configured on the mounting boss, and the mounting boss (78) is pressed into the receptacle of the housing (90) up to the shoulder. The mounting boss (78) appears to have a bevel end configuration (fig. 3). Pepperling discloses applying a seal (i.e. adhesive, col. 4, lines 23-25) to the press-fit area to seal the pressure port. *See column 3, line 59, - column 4, line 31, and figure 3 for further clarification.*

Pepperling, however, does not disclose the following: the housing having a second hardness less than the first hardness; the mounting boss of the pressure port being configured with knurls thereon; the knurls oriented parallel to an axis of the pressure port, or pressing the mounting boss of the pressure port into the receptacle of the housing along a direction of the axis such that the knurls deform the receptacle of

the housing to conform about the knurls to define a semi-rigid mount; providing a stainless steel pressure port and an aluminum housing; providing a length of the knurls that is less than a depth of the receptacle; configuring the knurls of the mounting boss and the receptacle to have an interference fit; configuring the mounting boss with straight knurls; applying a seal to the press fit area to seal the pressure port; configuring the straight knurls to have bevel on an end thereof.

It discloses a housing (1) having a second hardness less than the first hardness, wherein the mounting boss (4) is configured with straight knurls thereon oriented parallel to an axis of the member (3). The mounting boss (4,5) is pressed into the receptacle (2) of the housing (1) to conform about the knurls to define a semi-rigid mount. The housing (1) is comprised of aluminum, and the member (3) is comprised of stainless steel. A length of the knurls (i.e. peaks and valleys 4, 5) is provided that is less than a depth of the receptacle (2, fig. 3c), wherein the knurls of the mounting boss and the receptacle are configured to have an interference fit (i.e. press-fit). *See column 3, line 23 – column 4, line 57; column 6, lines 36-35; and figure 3c for further clarification.*

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to provide housing of Pepperling with a second hardness less than the first hardness, provide the mounting boss of the pressure port with straight knurls thereon such that the knurls are oriented parallel to an axis of the pressure port, press the mounting boss of the pressure port into the receptacle of the housing along a direction of the axis such that the knurls deform the receptacle of the housing to conform about the knurls to define a semi-rigid mount, provide the pressure port as

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stainless steel and the housing as aluminum, provide a length of the knurls that is less than a depth of the receptacle, configure the knurls of the mounting boss and the receptacle to have an interference fit, and configure the straight knurls to have bevel on an end thereof, in light of the teachings of Ito, in order to firmly join steel and aluminum components to one another by press-fit.

Regarding **claim 12**, Pepperling/Ito discloses all of the claimed subject matter except for using silicon glue as the seal. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use silicon glue as the seal, since it is well known to use silicon based pressure sensing devices and furthermore it has also been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Note that the recitation "high pressure sensor for use in an automotive environment" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

### ***Response to Arguments***

3. Applicant's arguments filed 4/17/06 have been fully considered but they are not persuasive.

Applicant argues that nowhere do the cited references teach, suggest or make obvious using a high pressure sensor with a knurl press-fit for use in an automotive environment.

In response, the Examiner maintains that the combination of Pepperling/Ito teaches a pressure sensor with a knurl press-fit as explained in detail above in paragraph 1. Also, in response to applicant's argument above, the recitation "high pressure sensor for use in an automotive environment" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In addition, it is noted that the specification fails to define exactly what is a "high pressure", and therefore for the purposes of the environment in which the Pepperling reference the pressure values associated therein could be considered to be high pressures.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermie Cozart whose telephone number is 571-272-4528. The examiner can normally be reached on Monday-Thursday, 7:30 am - 6:00 pm.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DAVID P. BRYANT  
SUPERVISORY PATENT EXAMINER

JC   
June 20, 2006